CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 98-019

WASTE DISCHARGE REQUIREMENTS AND
RECISSION OF ORDER NO. 95-037 FOR:

PORT OF OAKLAND
BERTH 10 DREDGED SEDIMENT REHANDLING FACILITY
OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (herein called the Board) finds that:

1. These Waste Discharge Requirements apply to the Port of Oakland (Discharger) for use the Berth 10 Dredged Sediment Rehandling Facility (Berth 10 Facility) for drying and short term storage of sediments.

2. The San Francisco Bay Regional Water Quality Control Board authorized the use of the Berth 10 Facility for rehandling of dredged material during the Howard Terminal Expansion Project (Board Order No. 95-037). The current Order will authorize use of the Berth 10 Facility for multiple dredging projects over a period of five years.

3. The Discharger has also applied to the State for Water Quality Certification under Section 401 of the Clean Water Act for maintenance dredging of approximately 750,000 cubic yards of sediment over a five year period, averaging 150,000 cubic yards annually. They estimate that a small portion (less than 5%) will be unsuitable for aquatic disposal and require rehandling before it can be disposed at an upland location.

4. The purpose of the Berth 10 Facility is to allow dredged material to be dewatered prior to transportation and disposal or reuse at an upland site. The continued use of the facility will make it more cost effective for the Discharger to take dredged material upland, thus reducing the volumes of dredged material disposal in San Francisco Bay.

5. Each dredging episode within the Port of Oakland will require review by the Dredged Material Management Office (DMMO), so that the suitability of disposal/reuse sites can be evaluated. Material that is not suitable for aquatic disposal and is proposed for rehandling at the Berth 10 Facility may require additional evaluation to make a final disposal site determination.

6. The Berth 10 Facility has been constructed in the following manner:

   a. Berth 10 has been converted into the rehandling facility with a capacity of 31,500 cubic yards of wet (50% water) dredged material. Half of the facility is constructed on a pile supported concrete wharf and the remaining portion is on asphalt-covered land.

   b. The containment area is enclosed by sediment-filled woven mesh geotextile bags containing an inner filter fabric liner. The bags are approximately four feet high and rest against an external earthen berm, to prevent rolling. The bag length ranges up to a maximum of 300 feet.

   c. The sediment used to fill the bags was dredged from the northern portion of Berth 24. Testing indicated this material, approximately 5,000 cubic yards, was unsuitable for unconfined aquatic disposal. A subsequent Waste Extraction Test (WET) indicated that this material met Vasco Road Landfill's acceptance criteria.

   d. All storm drains within the containment area have been covered and the asphalt area sealed. Two weirs were constructed at the low end of the site, so that any water draining from the site would pass through geotextile screens before discharge. This order limits the suspended solids in any effluent to 100 mg/L or less of total suspended solids.

   e. The maximum design flow capacity is 300 gallons per minute and it was initially expected that discharge rates would be limited to 30 gallons per minute. In fact, no water was discharged from the facility during sediment drying for the Howard Terminal Expansion Project. After placement of dredged materials in the containment area, water was observed to percolate to the sediment surface and evaporate, so that no discharge occurred.

7. Each episode of rehandling at the Berth 10 facility will require notification to the Executive Officer. This notification shall include the following information about the material proposed for rehandling: source, volume, summary of chemical and toxicity characterization, evidence that the material is not a hazardous waste, and proposed disposal or reuse of the material after drying. The notification should also indicate whether the Discharger intends to use the standard monitoring included in the attached Self-Monitoring Program (SMP) or an expanded monitoring program.

8. Monitoring reports (as described in the SMP) will be required on a monthly basis while the Berth 10 Facility is being used. Notification of the final status of the dredged material will be required after each episode of dredged material rehandling. The Discharger will be required to submit an annual summary of the use of the facility.

9. The general format of the monitoring plan for water discharge from the Berth 10

Facility is included in the Self-Monitoring Program attached to this order, but the suite of chemicals to be analyzed may be expanded based on the chemical characteristics of the proposed material, either by the Executive Officer or by the Discharger.

10. The Board as a participant in the Long-Term Management Strategy is examining alternative management options for disposal of dredged sediment over a 20-50 year planning horizon. The Board finds that it is in the public interest to encourage upland disposal or reuse of suitable dredged materials to reduce the volumes of disposal in the San Francisco Bay.

11. Return Water discharge from this facility is subject to the requirements of this Order and Nationwide Permit 16 (CFR 33 Part 330): Return Water from Upland Contained Disposal Areas.

12. The existing and potential beneficial uses of groundwater in the vicinity of the site include municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply. The beneficial uses of Central San Francisco Bay, as set forth in the Basin Plan, are as follows:

    a. Navigation
    b. Water contact recreation
    c. Non-contact water recreation
    d. Industrial service supply
    e. Wildlife habitat
    f. Fish spawning
    g. Ocean, commercial, and sport fishing
    h. Preservation of rare and endangered species
    i. Fish migration
    j. Shellfish harvesting
    k. Estuarine habitat
    l. Industrial Service Supply
    m. Industrial Process Supply

13. The Board, on June 21, 1995, adopted a revised Water Quality Control Plan (Basin Plan) which contains water quality objectives for surface and ground waters in the region, as well as discharge prohibitions intended to protect beneficial uses

14. **CEQA:** The Berth 10 Facility was evaluated in the Charles P. Howard Terminal Extension Environmental Impact Report (EIR) dated October 1994. The EIR identified potential impacts to water quality through discharge of return water with high levels of turbidity, since suspended sediments could transport organic contaminants and heavy metals into the receiving water. This Order contains requirements for monitoring the return water (Self-Monitoring Program, Part B) and Effluent Limitations (WDRs, Section C) to prevent significant discharge of

particulate contaminants to the Receiving Water.

15. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge, and has provided them with an opportunity to submit their written views and recommendations.

16. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger shall meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and shall also comply with the following:

A. PROHIBITIONS

1. The direct discharge of wastes (including dredged sediment material) to surface waters or surface water drainage courses is prohibited.

2. The discharge shall not cause degradation of any water supply.

3. No material shall be placed in the containment area prior to a suitability determination by the Dredged Material Management Office (DMMO) and approval by the Executive Officer.

4. The dredged material shall remain within the designated rehandling area during the dewatering operations.

5. The dredging and dredged material disposal shall not cause a nuisance as defined in Section 13050(m) of the California Water Code.

B. DISCHARGE SPECIFICATIONS

1. At no point within the containment area shall the elevation of sediment exceed that of the containment structures. If, however, the dewatered sediment is sufficiently dry, it may be piled above the berm elevation in such a manner as to not risk over-topping the containment structures.

2. If the facility sustains any earthquake damage, the Discharger will work diligently to repair such damage and remove any threat to water quality that might exist as a consequence of the damage.

3. The Berth 10 facility shall be operated, to the extent possible, to prevent inundation, washout or erosion of the sediments, which could occur during a

storm event.

C. EFFLUENT LIMITATIONS

1. Water (decant water, return water) discharged from any point on the facility shall not exceed the following limits of quality at any time:

i) pH	6.5 – 8.5
ii) Settleable Matter	1.0 mL/hr
iii) Dissolved Sulfide	0.1 mg/L
iv) Suspended Solids	100 mg/L

D. RECEIVING WATER LIMITATIONS

1. The dredging and dredged material disposal shall not cause a nuisance as defined in Section 13050(m) of the California Water Code.

2. The disposal of waste shall not cause:
   a. Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place more than 100 feet from the dredged or point of discharge of the return flow.
   b. Bottom deposits or aquatic growth in waters of the State.
   c. Alteration of apparent color beyond present natural background levels in waters of the State at any place more than 100 feet from the dredge or point of discharge of the return flow.
   d. Visible floating, suspended, or deposited oil or other products of petroleum origin in waters of the State at any place.
   e. Waters of the State to exceed the following quality limits at any point:

      (i) Dissolved Oxygen:

      5.0 mg/L minimum.
      When natural factors cause lesser concentrations then this discharge shall not cause further reduction in the concentration of dissolved oxygen.

(ii) Dissolved sulfide:

0.1 mg/l maximum

(iii) pH:

A variation from natural ambient pH by more than 0.2 pH units.

(iv) Toxic or other deleterious substances:

None shall be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

3. The turbidity of the waters of the State, as measured in NTUs, at any point beyond 100 feet from the point of discharge of the return flow shall not increase above background levels by more than the following:

Receiving Water Background	Incremental Increase
<50 units	5 units, maximum
50-100 units	10 units, maximum
>100 units	10% of background, maximum

4. The groundwater shall not be degraded as a result of the sediment handling operations.

E. PROVISIONS

1. The Discharger shall comply with all Prohibitions, Specification and Provisions of this Order immediately upon adoption of this Order, or as provided below.

2. The discharge of silt, sand, clay or other earthen materials from dredging, construction, or any other on-shore operation in quantities sufficient to cause deleterious bottom deposits or turbidity or discoloration in excess of natural background levels in surface waters is prohibited.

3. Dredging operation shall cease immediately whenever violation of these Requirements is detected. The Discharger shall notify the Regional Board immediately and operations shall not resume until alternative methods of compliance are provided and approved by Regional Board staff.

4. The Discharger shall file with the Regional Board self-monitoring reports as specified by the SMP.

5. Dust and odor from the dredged sediment disposal operation shall not cause a nuisance beyond the property boundary.

6. All reports pursuant to these Provisions shall be prepared under the supervision of a registered civil engineer or registered geologist, as appropriate.

7. The discharge of any hazardous waste as defined in Title 23, Division 3, Chapter 15 of the California Administrative Code, at the Berth 10 Facility, is prohibited. Only dredged material that has been characterized and is not hazardous may be handled at the Berth 10 Facility.

8. The Discharger shall file with this Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries of the disposal areas or the ownership of the site.

9. Each dredging episode within the Port of Oakland will require review by the Dredged Material Management Office (DMMO), so that the suitability of disposal/reuse sites can be evaluated. Material that is not suitable for aquatic disposal and is proposed for rehandling at the Berth 10 Facility may require additional evaluation to make a final disposal site determination.

10. Each episode of rehandling at the Berth 10 facility will require notification to the Executive Officer. This notification shall include the following information about the material proposed for rehandling: source, volume, summary of chemical and toxicity characterization, evidence that the material is not a hazardous waste, and proposed disposal or reuse of the material after drying. The notification should also indicate whether the Discharger intends to use the standard monitoring included in the attached Self-Monitoring Program (SMP) or an expanded monitoring program.

11. Monitoring reports (as described in the SMP) will be required on a monthly basis while the Berth 10 Facility is being used. Notification of the final status of the dredged material will be required after each episode of dredged material rehandling. The Discharger will be required to submit an annual summary of the use of the facility.

12. The general format of the monitoring plan for water discharge from the Berth 10 Facility is included in the Self-Monitoring Program attached to this order, but the suite of chemicals to be analyzed may be expanded based on the chemical characteristics of the proposed material, either by the Executive Officer or by the Discharger.

13. The ultimate off-site disposal or reuse of the dried dredged material is subject to the approval of the Executive Officer. This approval will be based upon a demonstration that the ultimate disposal will occur at a site that has Waste Discharge Requirements (WDRs) or a waiver from this or another Regional Board. This provision refers not only to the material processed at the Berth 10 Facility, but also to the material contained in the geotextile containment structures.

14. Any use of the Berth 10 Facility for materials other than those dredged by the Discharger is not permitted by this Order. Use of the site by other dischargers will require separate WDRs or a waiver of WDRs.

15. The Discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

16. The Board considers the Discharger to have continuing responsibility for correcting any problems that arise as a result of the dredged material rehandling operations by the Discharger.

17. The discharger shall maintain all devices or design features installed in accordance with this Order, such that they continue to operate as intended without interruption, except as a result of failures which could not have been reasonably foreseen or prevented by the discharger.

18. The discharger shall permit the Regional Board or its authorized representative, upon presentation of credentials:

    a. entry upon the premises on which wastes are located or in which any required records are kept;

    b. access to copy any records required to be kept under the terms and conditions of this Order;

    c. inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order; and

    d. sampling of any discharge or groundwater covered by this Order.

19. The Discharger shall comply with all applicable items of the attached "Standard Conditions and Reporting Requirements for Non-NPDES Wastewater Discharge Permits" dated August 1993.

20. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes without appropriate permits from other agencies.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, March 18, 1998.

Loretta K. Barsamian
Executive Officer

Attachments:

Figure 1. Location Map.
Figure 2. Site Map.
Attachment A: Self-Monitoring Program

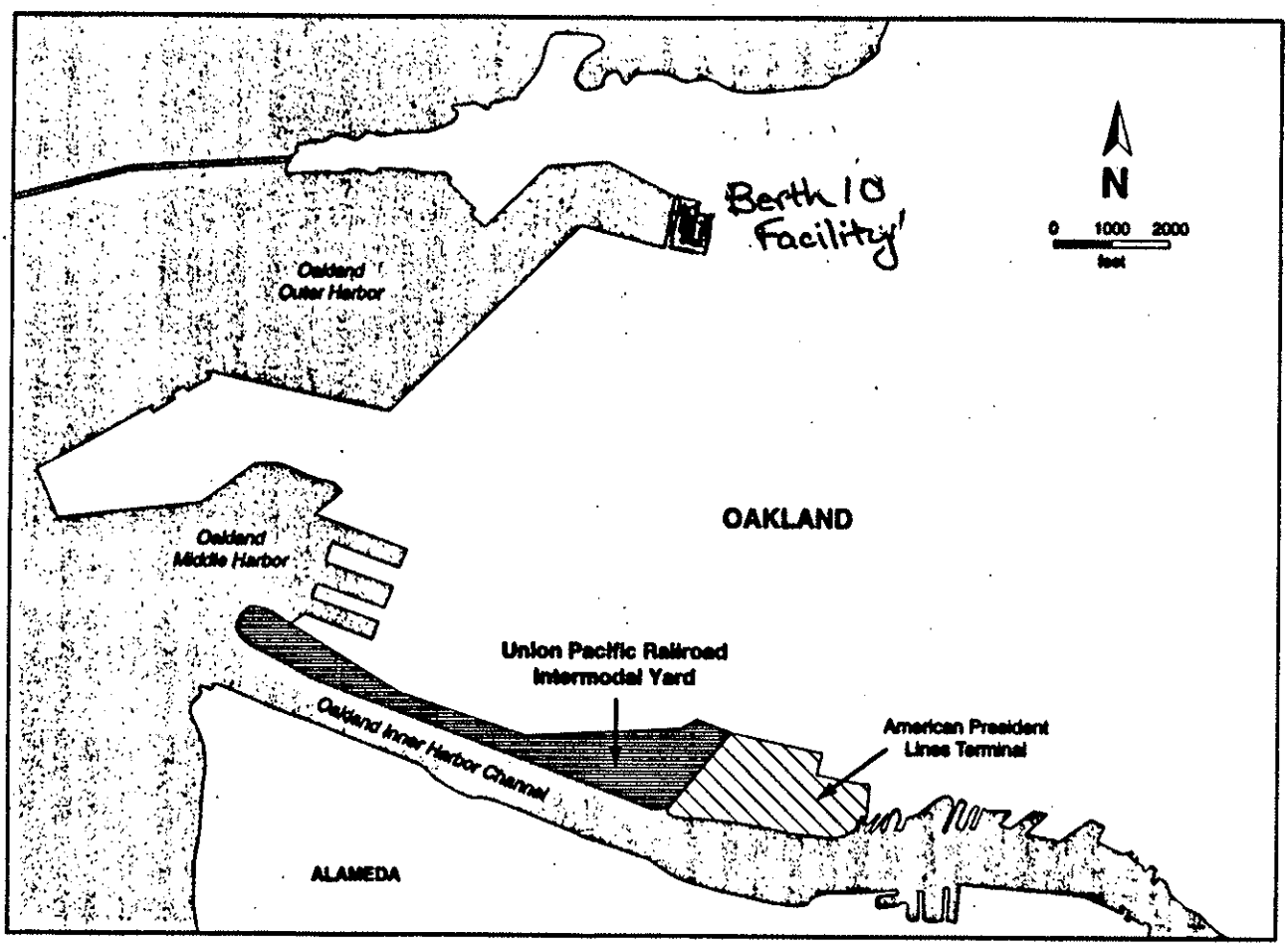

Figure 1. Berth 10 Dredged Sediment Rehandling Facility – Location Map

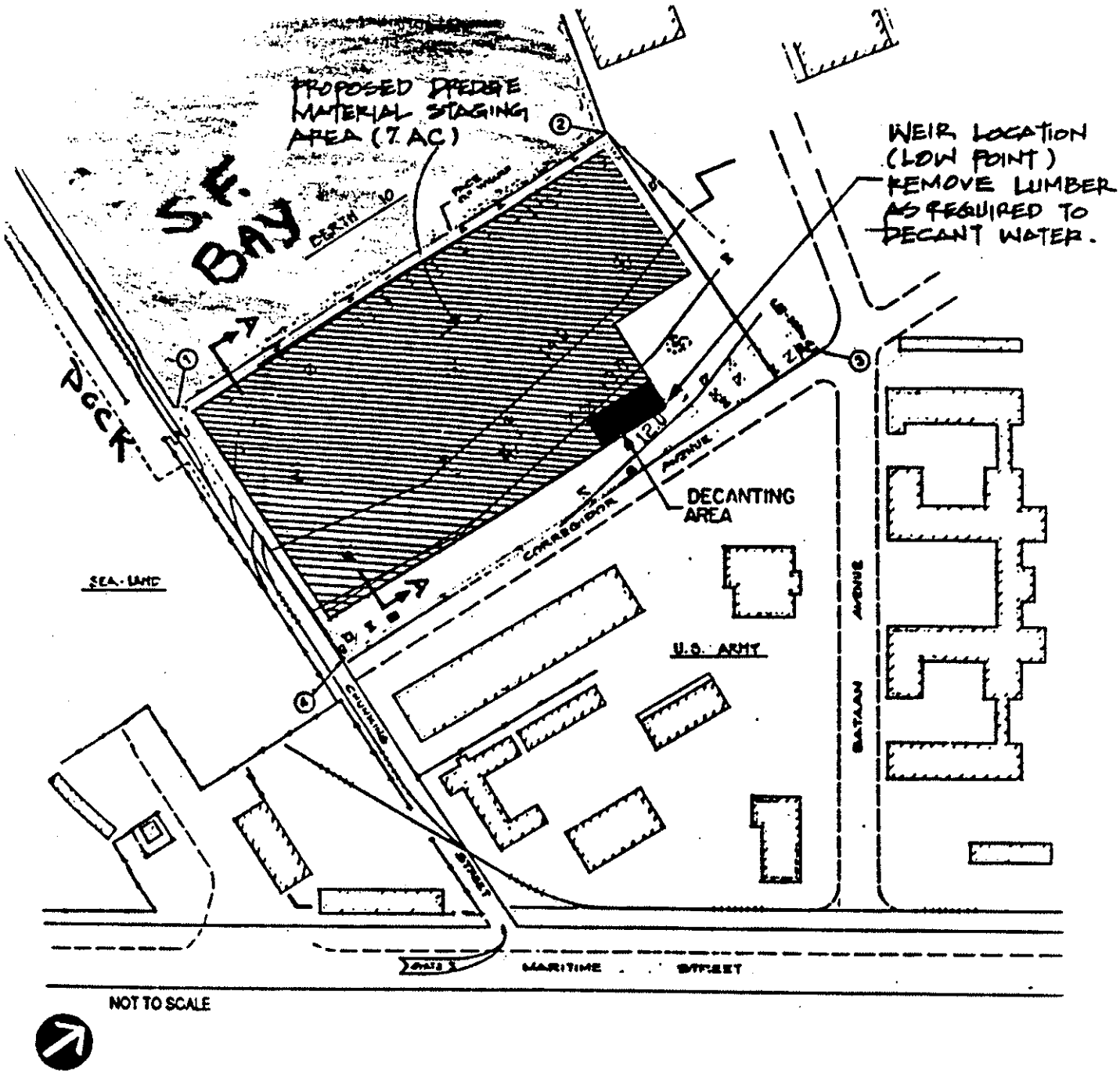

Figure 2. Berth 10 Dredged Sediment Rehandling Facility – Site Map

Attachment A:
Self-Monitoring Program for
Berth 10 Dredged Sediment Rehandling Facility

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

PORT OF OAKLAND
BERTH 10 DREDGED SEDIMENT REHANDLING FACILITY

OAKLAND, ALAMEDA COUNTY

ORDER NO. 98-019

CONSISTS OF

PART A
(6 Pages)

AND

PART B
(3 Pages)

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Self-Monitoring Program is issued in accordance with Provision 4 of Regional Board Order No. xxxxx.

The principal purposes of a Self-Monitoring Program are:

1. to document compliance with waste discharge requirements and prohibitions established by the Board,

2. to facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge,

3. to develop or assist in the development of standards of performance, and toxicity standards,

4. as appropriate, to assist the Ports in complying with the requirements of Article 5, Chapter 15 as revised July 1, 1991.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. **Grab Sample** refers to a discrete sample collected at any time.

2. **Receiving Waters** refers to any surface water which actually or potentially receives surface or groundwater that pass over, through, or under waste materials or dredged sediment.

3. **Standard Observations** refers to the following observations at the indicated sites:

   a. Receiving Waters:

      i. Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
      ii. Discoloration and turbidity: description of color, source, and size of affected area.
      iii. Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

   b. Perimeter of the Berth 10 Dredged Sediment Rehandling Facility (Berth 10 Facility):

      i. Evidence of liquid leaving or entering the containment area at any point, estimated size of affected area and flow rate (Indicate affected area on map).
      ii. Evidence of odors or dust, presence or absence, characterization, source, and distance of travel from source.
      iii. Evidence of erosion of stabilizing earthen berm(s).

   c. Berth 10 Facility perimeter containment bags:

      i. Evidence of ponded water at any point on the surface of the bags.
      ii. Evidence of leaks, sags, rips, tears or scuffs on the bag surface.
      iii. Evidence of deterioration or discoloration of the fabric.
      iv. Evidence of failure or excessive stress of the seams.
      v. Evidence of vandalism or mischief.
      vi. Evidence of failure or malfunction of inner filter liner.

   d. Berth 10 Facility foundation:

      i. Evidence of surface cracks adjacent to facility.
      ii. Evidence of any excessive settlement of the facility.

4. **Operations Monitoring** refers to the following information:

   a. a description of and a map showing the area(s) dredged during the previous month.
   b. estimates of the daily volume in cubic yards and the disposal location(s) of dredged materials removed during each day of the

previous month.

c. estimates of the daily volume in gallons and the disposal location(s) of return water generated from the dewatering of the dredged material.

D. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

E. REPORTS TO BE FILED WITH THE BOARD

1. Written monitoring reports shall be filed according to the schedule set forth in Table A. The reports shall contain the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from

which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include an estimation of the volume of the facility discharge on a monthly basis.

c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

d. Laboratory statements of results of analyses specified in Part B must be included in each report, if appropriate. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

    i. The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.

    ii. In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

f. A summary and certification of completion of all Standard Observations for the facility including the receiving waters, the perimeter of the containment facility, sediment-filled, perimeter containment bags and facility foundation.

g. A summary and certification of completion of all Operations Monitoring information.

2. **CONTINGENCY REPORTING**

a. A report to the Executive Officer shall be made by telephone of any accidental discharge of whatever origin from the dewatering facility

immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

i. a map showing the location(s) of discharge(s);
ii. approximate flow rate;
iii. nature of effects; i.e. all pertinent observations and analyses; and
iv. corrective measures underway or proposed.

b. If any instantaneous maximum effluent limit is exceeded, within 24 hours of receiving the analytical results indicating the violation, a confirmation sample shall be taken and analyzed with 24-hour turn-around time. If the instantaneous maximum is violated in the second sample, the Discharger shall notify Regional Board staff immediately. The Executive Officer may order the discharge to be terminated, on a case-by-case basis.

3. EPISODE COMPLETION NOTIFICATION

The Discharger shall notify the Regional Board by letter upon final reuse or disposal of the dredged material each episode of rehandling. Episode completion is considered to be the date on which all dredged material has been deposited at its final disposal/reuse location(s). The Discharger shall also submit an Episode Notification containing the following information:

a. A discussion of the compliance record, and the corrective actions taken or planned during this episode

b. An estimate of the total volume of dredge material from this episode that was dried and then reused or disposed

c. Confirmation of the disposal or reuse location(s) for this episode and the total volume of dredged material disposed or reused.

d. An estimate of the total volume of return water/decant water generated from dewatering of the dredged material.

4. ANNUAL SUMMARY REPORT

The Discharger shall submit an Annual Summary Report on the operations of the Berth 10 Facility by March 1 of the following year. This Summary Report shall contain:

a. A comprehensive discussion of the compliance record, and the corrective actions taken or planned during this year.

b. A comprehensive discussion of the effectiveness of the dredging techniques and barge dewatering methods employed during this year.

c. An evaluation of the status and effectiveness of the Berth 10 Facility to date. This should include a discussion of any needed repairs or upgrades to the Facility, modifications of the Facility operations and recommendations on the future use of this facility.

d. An estimate of the total volume of dredge material from this episode that was dried and then reused or disposed during this year.

e. A listing of the disposal or reuse location(s) for this year and the total volume of dredged material disposed or reused this year

f. An estimate of the total volume of decant water generated from dewatering of the dredged material this year.

Part B
ORDER NO. 98-019
PORT OF OAKLAND
BERTH 10 DREDGED SEDIMENT REHANDLING FACILITY

I. DESCRIPTION OF MONITORING STATIONS

A. EFFLUENT

E-1 At the point in the Berth 10 Dredged Sediment Rehandling Facility (Berth 10 Facility) discharge system immediately after discharge from the final weir and filter.

II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis is provided in the attached Table A.

Samples of effluent and receiving waters shall be collected at times coincident with influent sampling unless otherwise stipulated. The Regional Board or Executive Officer may approve an alternative sampling plan if it is demonstrated that expected operating conditions warrant a deviation from the standard sampling plan.

III. REPORTING SCHEDULE

Reports submitted in compliance with this Self-Monitoring Program shall be submitted on the following on the following bases:

Monthly Reporting - Monthly reports shall be submitted during all sediment placement, sediment storage and dewatering operations. Monthly reports shall be submitted by the 15th day of the month following the reporting period, beginning with the first month of dredging. Monthly reports shall include the measurements, observations and monitoring as listed in Table A-1 and A-2.

Episode Completion Notification - The Discharger shall notify the Regional Board by letter upon completion of each episode of sediment dewatering, rehandling and disposal or reuse. Episode completion is considered to be the date on which all dredged material has been deposited at its final disposal/reuse location(s). The Discharger shall submit the Notification within 15 days of the episode completion date.

Annual Summary Report - The Discharger shall submit an Annual Summary Report to the Regional Board as described in Part A of this Self-Monitoring Program by March 1 of the following year.

All reports shall be submitted to:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 98-019

2. Was adopted by the Board on March 18, 1998.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger, and revisions will be ordered by the Executive Officer or the Board.

Loretta K. Barsamian
Executive Officer

Attachments: Table A-1 and A-2: Schedule for Sampling, Measurements and Analysis

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

ORDER NO. 98-019

PORT OF OAKLAND

BERTH 10 DREDGED SEDIMENT REHANDLING FACILITY

Table A-1

Sampling Station ->	**E-1**	**Reporting Period**
Sample Type	Grab	N/A
Total Suspended Solids	Daily during periods of discharge	Monthly during periods of discharge
Turbidity (NTUs) field		
pH (units) field		
Dissolved Oxygen		
Dissolved Sulfide		
Temperature		

TABLE A-2

Report Submission schedule:

	Frequency	Reporting Period	Report Due Date
Standard Observations	Daily during periods of placement of material or discharge. Weekly at other times.	Monthly during periods when the containment area is being used.	15th of Month Following Reporting Period
Operations Monitoring			
Table A-1 Parameters			
Episode Completion Notice	One Time per Episode	N/A	15 Days After Completion of the Episode
Annual Summary Report	Yearly	Yearly	By March 1 of the following year